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AMENDMENTS

Please amend the claims as follows:

1. (Currently Amended) A method for adaptive grating lobe suppression in ultrasound processing, the method comprising:

(a) acquiring ultrasound data;

(b) filtering the ultrasound data with a band-pass filter prior to detection;

~~(b)~~(c) determining with a processor a grating lobe level as a function of the ~~ultrasound data~~ filter input and filter output; and

~~(c)~~ (d) automatically altering processing in response to the grating lobe level.

2. (Cancelled)

3. (Currently Amended) The method of Claim ~~2~~ 1 wherein ~~(d)~~ (b) comprises performing the filtering after beamformation, the ultrasound data being beamformed data.

4. (Currently Amended) The method of Claim ~~2~~ 1 wherein ~~(d)~~ (b) comprises performing the filtering after application of beamforming delays and prior to channel summation, the ultrasound data being channel data.

5. (Currently Amended) The method of Claim ~~2~~ 1 wherein ~~(b)~~(c) comprises determining as a function of a difference of the filter input and filter output.

6. (Currently Amended) The method of Claim ~~2~~ 1 wherein ~~(b)~~(c) comprises determining as a function of a ratio of the filter input and filter output.

7. (Currently Amended) The method of Claim ~~2~~ 1 wherein ~~(c)~~ (d) comprises outputting a weighted summation of the filter input and filter output where the weights are a function of the grating lobe level.

8. (Original) The method of Claim 7 further comprising:

(e) displaying an image as a function of the weighted summation output.

9. (Currently Amended) The method of Claim 7 wherein the weights are one of: ~~(e1)~~ 1 for the filter input and 0 for filter ~~output~~ output, and ~~(e2)~~ 0 for the filter input and 1 for filter ~~output~~ output.

10. (Currently Amended) The method of Claim ~~2~~ 1 wherein ~~(e)~~ (d) comprises modulating a gain as a function of the grating lobe level.

11. (Currently Amended) The method of Claim ~~2~~ 1 wherein ~~(d)~~ (b) comprises filtering with the bandwidth of the band-pass filter being narrower than a bandwidth of the ultrasound data and a center frequency of the band-pass filter being lower than a center frequency associated with the ultrasound data.

12. (Original) The method of Claim 1 wherein (a), (b) and (c) are performed separately for a plurality of locations within a scanned region.

13. (Currently Amended) The method of Claim 12 wherein ~~at least one of (b)~~(d), ~~and~~ (c) or ~~(b)~~(d) and (c) are varied as a function of ~~at least one of~~ steering angle, range or steering angle and range.

14-19. (Cancelled)

20. (Currently Amended) The method of Claim 1 wherein ~~(b)~~(d) and (c) comprises adaptively rejecting grating lobe energy in beamforming as a function of an object field being scanned.

21. (Currently Amended) The method of Claim 1 wherein ~~(b)~~ (c) comprises determining an amount of grating lobe energy in the ultrasound data and ~~(c)~~ (d) comprises reducing an amount of grating lobe clutter in image signals.

22. (Currently Amended) A system for adaptive grating lobe suppression in ultrasound processing, the system comprising:

an ultrasound transducer; and

a processor connected with the ultrasound transducer, the processor operable to determine a level of grating lobe clutter in ultrasound data from the ultrasound transducer and operable to alter processing in response to the level of grating lobe clutter~~;~~

wherein the processor comprise a band-pass filter operable to filter the ultrasound data prior to detection, the level of grating lobe clutter determined as a function of the ultrasound data input to the filter and filtered ultrasound data output from the filter.

23-24. (Cancelled)

25. (Currently Amended) A method for adaptive grating lobe suppression in ultrasound processing, the method comprising:

(a) measuring a level of grating lobe energy from received ultrasound data; and

(b) adapting data processes to reduce the level of grating lobe energy in the received ultrasound data~~;~~

(a1) filtering with a filter having a lower center frequency than for the received ultrasound data; and

(a2) comparing the received ultrasound data with filtered ultrasound data responsive to the filter; and

wherein (b) comprises one of:

(b1) modulating a gain as a function of the comparison of (a2); and

(b2) selecting one of the received ultrasound data, the filtered ultrasound data and combinations thereof as a function of the comparison of (a2).

26-30. (Cancelled)

31. (Previously Presented) A method for adaptive grating lobe suppression in ultrasound processing, the method comprising:

(a) axially processing received ultrasound data; and

(b) adapting data processes as a function of the axial processing to reduce grating lobe energy in the received ultrasound data.

32. (Previously Presented) The method of Claim 31 wherein (a) comprises axially filtering the received ultrasound data, the axial filtering operable to alter grating lobe content of the received ultrasound data.